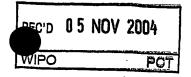
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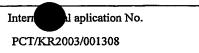
# 101

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Artcle 36 and Rule 70)

F								
Applicant's or agent's file reference 03PCP0010  FOI	FOR FURTHER ACTION  SeeNotificationofTransmittalofInternationalPreliminary Examination Report (Form PCT/IPEA/416)							
	national filing date(day/m	onth/year)	Priority date (day/mont)	lyear)				
PCT/KR2003/001308   02 J	ULY 2003 (02.07.20	003)	02 JULY 2002 (02.07.2	2002)				
International Patent Classification (IPC) or nati	onal classification and IP	PC .						
IPC7 C07K 14/59	·							
Applicant				· · ·				
NEXGEN BIOTECHNOLOGIES, INC. et al								
<ol> <li>This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</li> </ol>								
2. This REPORT consists of a total of3 sheets, including this cover sheet.								
This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).								
These annexes consist of a total of	sheets.	- u						
3. This report contains indications relating	3. This report contains indications relating to the following items:							
I X Basis of the report								
II Priority								
III Non-establishment of opin	ion with regard to novelt	v inventive sten	and industrial applicability					
IV Lack of unity of invention	=	y, mivemitve step	and moustral approachity					
· · ·								
V X Reasoned statement under citations and explanations			ntive step or industrial app	licability;				
VI Certain documents cited								
VII Certain defects in the inter	national application							
VIII Certain observations on the international application								
	·							
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Date of submission of the demand	Date	e of completion o	f this report					
			•					
02 FEBRUARY 2004 (02.	.02.2004)	26 OCTOBI	ER 2004 (26.10.2004)					
Name and mailing address of the IPEA/KR		horized officer		Kara in the second				
Korean Intellectual Property Offic 920 Dunsan-dong, Seo-gu, Daejeo Republic of Korea	ce I	PARK, JEONO	3 UNG	(自首)				
Facsimile No. 82-42-472-7140	Tele	phone No. 82-4	2-481-8159	AII AII AI				





I.	Basis	of the report					
1.	With	regard to the elements of the international application:*					
	X	the international application as originally filed					
		the description:					
		pagespages	, as originally filed , filed with the demand				
		pages, filed with the letter of					
		the claims:					
	ليا	pages, as amended (together with a	, as originally filed				
		pages	, filed with the demand				
		pages, filed with the letter of					
		the drawings:					
		pagespages					
		pages, filed with the letter of					
		the sequence listing part of the description:					
		pagespages	, as originally filed , filed with the demand				
		pages, filed with the letter of	, med with the demand				
2.	the i	the language of a translation of the international application (under Rule 48.3(b)).  the language of the translation furnished for the purposes of international preliminary examples of the language of the translation furnished for the purposes of international search (under Rule the language of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international preliminary examples of the translation furnished for the purposes of international prelimina	glish which is 23.1(b)).				
3	With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:  X contained inthe international application in written form.						
		filed together with the international application in computer readable form.					
	Ħ	furnished subsequently to this Authority in written form.					
	Ħ	furnished subsequently to this Authority in computer readable form					
		The statement that the subsequently furnished written sequence listing does not go international applicationas as filed has been furnished.  The statement that the information recorded in computer readable form is identical to the been furnished.					
4.		The amendments have resulted in the cancellation of:					
		the description, pages					
		the claims, Nos.					
		the drawings, sheet					
5.		This report has been established as if (some of) the amendments had not been made, sing go beyond the disclosure as filed, as indicated in the Supplemental Box(Rule 70.2(c)).**	nce they have been considered to				
*	Repl in th and	under Article 14 are referred to ain amendments (Rules 70.16					
*	** Any replacement sheet containing such amendments must be referred to under item I and annexed to this report.						

# V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

# 1. Statement

1	1. Dunomon			
ı	Novelty (N)	Claims	1-10	YES
	,	Claims	None	NO
	Inventive step (IS)	Claims	1-10	YES .
		Claims	None	NO
	Industrial applicability (IA)	Claims	1-10	YES
		Claims	None	NO

## 2. Citations and explanations (Rule 70.7)

The present invention relates to a method for preparing transformed plants expressing thyroid stimulating hormone receptor (TSHR) or thyroid stimulating hormone receptor extracellular domain (TSHR-ECD).

The following documents have been considered for the purpose of this report:

D1: Biotechnology Progress 16(5): 703-709 (2000)

D2: EP 0719858A2 (Mar. 07, 1996)

#### 1. Novelty

D1 describes the development of a serum-free process of TSHR based on a stable transformed and highly productive human leukemia cell line K562. D2 discloses a myeloma cell line expressing recombinant human thyroid stimulating hormone (TSH), and a method for producing a membrane fraction containing recombinant human thyroid stimulating hormone receptor (TSHR). The method for preparing TSHR or TSHR-ECD by transformed plant cells is not disclosed in any of the prior art. Therefore, the subject-matter of claims 1-10 is considered to be novel under PCT Article 33(2).

### 2. Inventive Step

The prior art does not teach or suggest the preparing method of TSHR or TSHR-ECD by transformed plant cells. Therefore, the subject-matter of claims 1-10 is considered to involve an inventive step under PCT Article 33(3).

#### 3. Industrial Applicability

The subject-matter of claims 1-10 is considered to be industrially applicable under PCT Article 33(4).